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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/028,054  | 12/20/2001  | Neil John Hursey     | NAI1P049/01.250.01  | 2968             |
| 28875   | 7590        | 07/14/2005           | EXAMINER            |                  |
| Zilka-Kotab, PC<br>P.O. BOX 721120<br>SAN JOSE, CA 95172-1120 |             |                      | SZYMANSKI, THOMAS M |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2134                |                  |

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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## Office Action Summary

Application No.

10/028,054

Applicant(s)

HURSEY, NEIL JOHN

Examiner

Thomas Szymanski

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/19/2002</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-30 have been examined.

#### ***Specification***

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

#### ***Drawings***

3. Figure 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-2 and 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Cozza U.S. Patent No 5,502,815.

6. Regarding claim 1: identifying file access pattern for data (Fig 4 part 40, Col 4 lines 17-29)

Reading data based on said pattern (Col 3 lines 43-67) The data is read based upon the given pattern as is denoted by the implementation of the pattern, relevant information is contained within the pattern as is necessary for the procedure to continue properly

Performing virus scan on the data (Col 4 lines 30-46)

7. Regarding claim 2: A file access pattern is generated for the data (Col 4 lines 3-16, Fig 3) If no such pattern exists Cozza automatically generates the pattern per the scanning of the file.

8. Regarding claim 5: Access pattern includes file location (Fig 5, Col 3 lines 55-65 Col 4 lines 10-16). Per the diagram this can be denoted as the FILEID/CACHEFILEID

9. Regarding claim 6: Access pattern includes a data amount (Fig 5, Col 4 lines 10-16) DATAFORKLEN/RESFORKLEN denotes the amount of data

10. Regarding claim 7: A first unit of operations reads the data and a second scans the data. (Fig 3, Col 3 lines 49-55, Col 4 lines 17-29) Each phase of the process can be marked as a separate thread of operation. As in this case the first thread reads the data and the second scans the data as would be common in any present day processor these two threads would be executed in parallel in a threaded manner as is the case

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with an out-of-order instruction handling processor, as such anticipating the above claim.

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cozza U.S. Patent No. 5,502,815 as applied to claim 1 above.

13. Regarding claims 3 and 4: Data is read and virus scan performed if data has no associated access pattern, it is then determined whether scan was slower than predetermined amount and as such an access pattern is conditionally generated. (Col 4 lines 17-29). If such a pattern does not provide for an increase in the efficiency of the scanning of a given file then it would not be beneficial to store any data associated with such a pattern as this would be a waste of valuable system resources and thus logically it would not be desirable to keep such an access pattern. Therefore, the examiner gives official notice that not storing an access pattern that provides for a decrease in system performance is logical and as such would not be provided for within any such system.

14. Claims 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cozza U.S. Patent No. 5,502,815 as applied to claim 7 above, and further in view of DeWitt et al U.S. Patent No. 5,577,224.

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15. Regarding claim 8: Cozza teaches reading the data (Col 3 49-55, Col 4 lines 17-29) As stated the access pattern is retrieved at the same time the data is read.

16. Cozza fails to explicitly teach the use of a cache for data to be scanned

17. However, DeWitt et al teaches an implementation of a cache for the purposes of improving system performance by reducing disk read time. (Abstract, Fig 1 part 26, Col 2 lines 1-2, Col 2 lines 10-21, 25)

18. A cache as stated by DeWitt et al improves the efficiency of any system over one that does not have a cache wherein data is prefetched from secondary storage and placed in the cache thus reducing disk read times and increasing efficiency of the system. Therefore, one would be motivated to perform the addition of such a system as the cache described by DeWitt within the system of Cozza as such an implementation follows the purpose of Cozza's original implementation of increasing scanning speed which the combination would improve.

19. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to combine the two above stated systems for the increased scanning efficiency that would thus be gained.

20. Regarding claim 9: Determining if the access pattern is valid and reading the data from the cache if it is valid. (Col 3 lines 53-67 Col 4 lines 1-9) As noted the pattern is validated and upon such determination the volume is scanned which provides for the data being read from the cache.

21. Regarding claim 10: Reading the data from cache if it has been loaded. (DeWitt Col 3 lines 14-15) As specified by DeWitt et al the data is prefetched as such this

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provides for the data being present before the necessary time so in such an implementation the data should always be available for reading as provided for by the system.

22. Regarding claim 11: Determining if file access pattern is valid (Cozza Col 3 lines 53-62 fig 3) The pattern is validated as a primary step before any further analysis may take place.

23. Regarding claim 12: Deleting access pattern if it is invalid (Cozza Col 4 lines 4-6) Cozza states that if the file is invalid or not present then the memory is simply zeroed i.e. deleted.

24. Regarding Claim 13: Generating a new access pattern if it was deleted (Cozza Col 4 lines 4-16) As a product of there being no file access pattern or it having been deleted due to an invalid state Cozza provides for the pattern to be generated automatically.

25. Claims 14-26 are a computer program product implementation of claims 1-13 and are thus rejected on the same basis as claims 1-13.

26. Claims 27-30 are merely a recitation of that which is claimed above and as such are rejected on the same merits as those previously rejected claims.

### ***Conclusion***

27. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is reminded that in amending in response to a rejection of claims, the patentable novelty must be clearly shown in view of the state of art

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disclosed by the references cited and the objections made. Applicant must show how the amendments avoid such references and objections. See 37 CFR 1.111(c).

28. Inquiries concerning this communication or earlier communications from the examiner should be directed to Thomas M. Szymanski who can be reached at (571) 272-8574. The examiner's normal working schedule is between the hours 8:00am – 4:30pm (EST), Monday – Friday.

29. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse, can be reached at (571) 272-3838. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

30. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jc

David Y. Jung  
Primary Examiner



6/25/08